

## SECTOR COMMENT

# Declining Demographics and Growing Competition Pressure Michigan Schools

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**Summary**

Public school districts throughout the State of Michigan (Aa2, positive) continue to contend with significant credit stress, primarily driven by declining enrollment and resulting loss of revenues, coupled with a lack of budgetary flexibility. The trends have contributed to nearly a quarter of Moody's-rated districts in the state receiving a rating downgrade through October 2013, and there is little sign that the credit pressures facing Michigan schools will ease in the coming year. The key drivers for operational pressure within the sector are:

- » The negative enrollment implications of adverse demographic trends and competition fostered by both a growing charter school presence and the state's Schools of Choice program.
- » Limited revenue-raising flexibility to offset revenue losses due to enrollment declines.
- » The growing diversion of operating resources to fund retirement liabilities.

Public school districts in metro Detroit and southeast Michigan have seen particularly large declines in enrollment given the region's economic and demographic challenges, although many school districts in other parts of the state have experienced enrollment declines as well. Furthermore, even those districts that have maintained stable or positive enrollment trends remain exposed to the lack of revenue-raising flexibility and growing retirement funding obligations. With these negative factors, the geographic location of downgraded issuers in 2013 has expanded relative to prior years to include a larger number of districts outside of southeast Michigan, a trend we expect to continue.

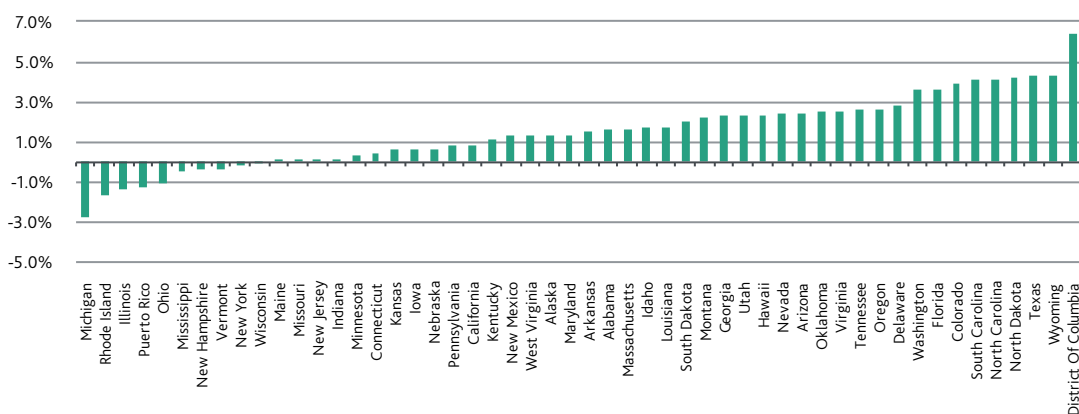


## Downward Enrollment Trends Driven by Demographic Shifts and Competition

A majority of Michigan school districts have realized declines in enrollment over the past decade. Of the 549 public school districts in the state, 425 lost students from 2004 through 2012, with total statewide school enrollment (excluding charter schools) falling by 13.2%.<sup>1</sup> This decline is partly explained by population trends, with Michigan leading the nation in net negative migration (see Exhibit 1). The recent recession exacerbated the long-term weakening of the state's automotive and other durable goods manufacturing sectors and contributed to an overall drop-off in statewide population. The steady decline in the state's under-18 population is even more notable, falling by an estimated 12.6% from 2000 to 2012 (see Exhibit 2).

EXHIBIT 1

### Michigan Leads Nation in Net Negative Migration as Percentage of Population, 2008-2012



Source: US Census Bureau and Moody's Analytics

EXHIBIT 2

### Decline of Michigan School-Age Population

	Under-18 Population	Change
1990	2,458,765	
2000	2,595,767	5.6%
2010	2,344,068	-9.7%
2012*	2,267,623	-3.3%

\* From the 2012 American Community Survey

Source: US Census Bureau

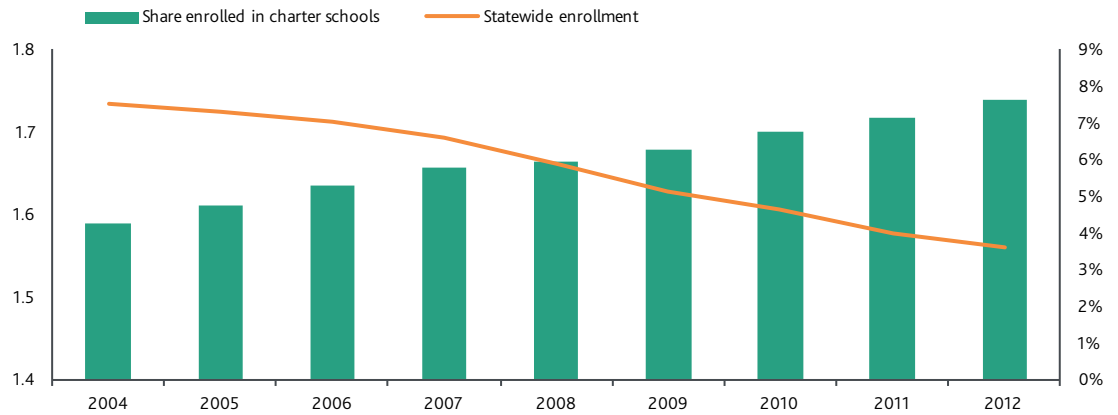
Beyond these statewide population trends, the increasing presence of charter schools in Michigan is also hurting traditional public school enrollment (see Exhibit 3). Both the share of students enrolled in charter schools and the number of charter schools operating in Michigan have grown steadily in recent years. Enrollment in charter schools increased more than 60% from 2004 through 2012 as the number of charter schools grew from 199 to 256 (see Exhibit 4). This brisk pace of expansion does not appear to be easing, with charter schools increasing in number by another 8% to 277 in the 2012-13 school year and again by 8% to 298 in the current 2013-14 school year.<sup>2</sup> At the close of the 2011-12 school year, charter schools enrolled nearly 120,000 students, or about 8% of the state's 1.56 million combined public school and public charter school population.

<sup>1</sup> Source: Analysis of Michigan Department of Education data

<sup>2</sup> Source: Michigan Department of Education

EXHIBIT 3

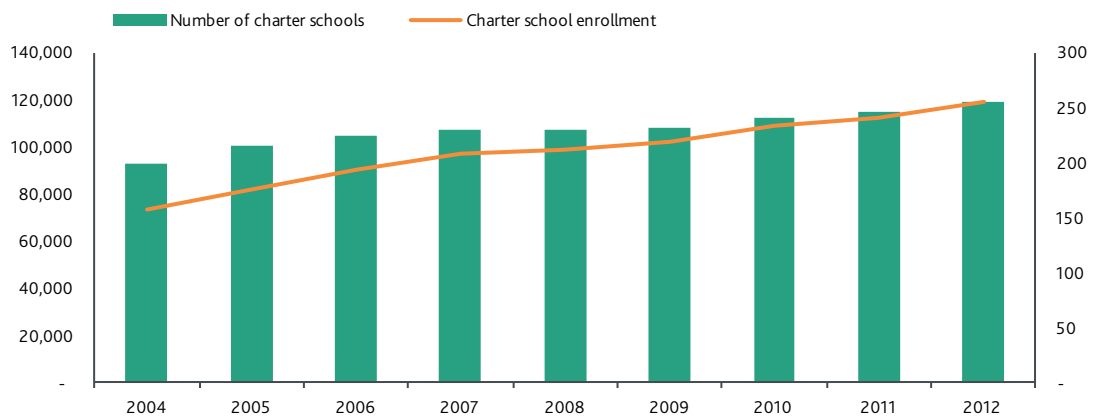
**Statewide Enrollment (millions) Declines While Charter School Share Increases**



Note: Statewide enrollment includes that in both public school districts and public charter schools.  
 Source: Analysis of Michigan Department of Education data

EXHIBIT 4

**Number of Charter Schools and Enrollment Continues to Grow**



Source: Michigan Department of Education and analysis of Michigan Department of Education data

While the presence and growth of charter schools largely remain concentrated in the Detroit metro area, charter schools are making inroads in other parts of the state as well. This includes not only southeast Michigan, which includes the city of Flint, but also portions of the state's west and northwest regions (see Exhibit 5).

## EXHIBIT 5

**Charter Schools Enroll Notable Share of Students in Various Locations**

City	Charter Share of Enrollment, 2011-12
Detroit	41%
Flint	33%
Grand Rapids	23%
Lansing	13%
Traverse City	12%
Port Huron	10%

Source: National Alliance for Public Charter Schools

The combined result of negative demographic trends, enrollment declines, and a growing charter school presence has resulted in many more schools competing to serve a shrinking student population. Going forward, we expect that new charter schools will continue to enter the market given the state legislature's revision of the state school code in December 2011. This revision calls for a gradual increase in the existing cap on the number of charter schools that can be authorized by public universities until this cap is completely eliminated in 2015. Furthermore, a January 2013 study by Stanford University's Center For Research on Education Outcomes found that charter schools in Michigan had a positive impact on the education outcomes of the students they serve, which may support additional enrollment in charter schools.<sup>3</sup>

In addition to charter schools, the state's Schools of Choice program, which enables public school districts to enroll students residing in other school districts, has increased the level of competition for students. While some districts have increased enrollment through this program, these gains have come at the expense of lost enrollment for other surrounding districts. Detroit Public Schools (DPS; B2, negative), for example, saw 8% of its resident students enroll in nearby public school districts during the 2011-12 school year, over and above those that transferred to charter schools (see Exhibit 6).

## EXHIBIT 6

**Largest Non-Charter School Enrollers of DPS Resident Students, 2011-12**

Public School District	Share of DPS Resident Students
Oak Park School District (Baa3)	1.2%
Clintondale Community Schools (Ba3, negative)	0.9%
Ferndale School District	0.8%
Inkster School District	0.6%
Hazel Park School District	0.6%
Westwood Community School District	0.4%
Dearborn Heights School District	0.3%
Hamtramck School District	0.3%
Melvindale-North Allen Park Public Schools	0.3%
Highland Park School District	0.3%

Source: Analysis of Michigan Department of Education data

<sup>3</sup> [Charter School Performance in Michigan](#), published January 1, 2013 by the Center for Research of Education Outcomes

Similar to charter schools, the impact of Michigan's Schools of Choice program extends beyond the Detroit metro area to urban and rural locations throughout the state (see Exhibit 7). For instance, Pontiac City School District (Caa1, negative) saw 21% of its students enroll in other districts during the 2011-12 school year, while the comparable figures for the Lansing School District (Aa3, negative) and Grand Rapids Public Schools (Aa3) were 17% and 16%, respectively.

## EXHIBIT 7

**Impact of Schools of Choice on Select Public School Districts**

Public School District	Share of Resident Students Enrolled in Other Public Districts, 2011-12
Pontiac City School District	21%
Lansing School District	17%
Grand Rapids Public Schools	16%
Flint School District	14%
Buena Vista School District	36%
Perry Public Schools (Ba1, negative)	21%
Capac Community School District (A2)	17%
Reed City Public Schools (Baa1, negative)	15%
Morenci Area Schools (Baa1)	13%

Source: Analysis of Michigan Department of Education data

Regardless of the source of enrollment decline, the result for affected districts is a loss in revenue, which can place significant strain on a budget. School district funding in Michigan is provided in the form of a per-pupil foundation allowance that is established for each district in the state's annual budget. The allowance is funded with a mix of locally-raised property tax revenues and state aid. The locally funded portion is comprised of property tax revenues generated by a fixed millage rate. The state adjusts its aid payment to a particular district based on the amount of local revenue raised by that district so that the combined funding received by a district conforms with the state's per-pupil funding formula. To determine changes in enrollment from the prior year, each district in the state conducts an enrollment count during the first week of October. A district's aid payments for the year are subsequently driven by the results of this count. Because changes in enrollment from the prior year are incorporated almost immediately into a district's funding, unexpected enrollment losses can rapidly destabilize a budget.

### Limited Flexibility to Offset Enrollment-Driven Revenue Loss

Compounding the problem, Michigan school districts have limited flexibility to offset the losses of revenue associated with enrollment declines. Individual public school districts in Michigan are statutorily precluded from seeking voter support of additional property tax revenue above the portion that funds the foundation allowance. Without that option, the only alternative for a district seeking to raise revenue is to increase enrollment by attracting students residing in other districts through the state's Schools of Choice program or through online course offerings. These opportunities, however, often require investment by the school district, which may not be available in the budget.

The only other option to balance the budget is to cut expenses, the vast majority of which are tied to teacher salaries and benefits. However, reducing staff can be challenging, particularly if a decline in enrollment is distributed across multiple grade levels, making it unfeasible to eliminate entire classes in any given year. Furthermore, because cutting expenses typically means cutting teachers and programs, a school that makes such cuts may see even more students leave for nearby public or charter schools,

taking their per-pupil funding with them. And as more students leave, revenue declines even further, creating the need for even more budget cuts. This “vicious cycle” has been a prominent factor in a number of recent rating downgrades of Michigan school districts, particularly in the southeast portion of the state.

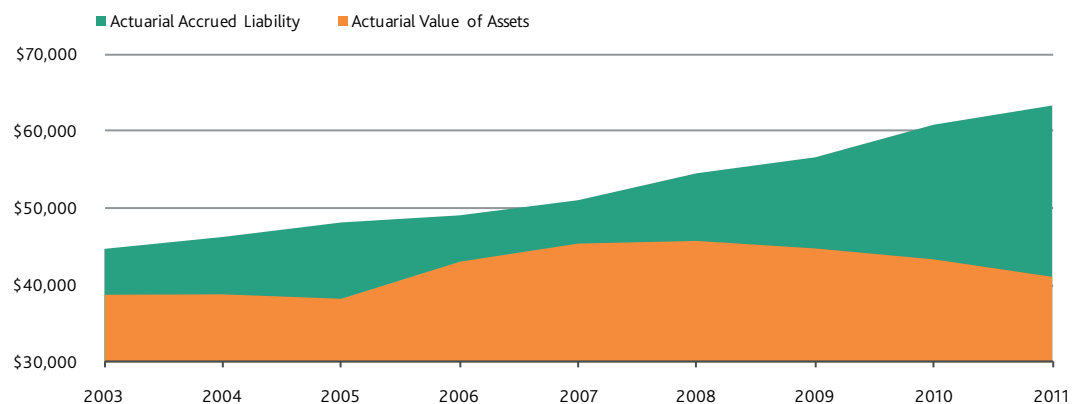
### Growing Retirement Costs Will Continue to Pressure Operating Budgets

Declines in enrollment suggest that the accumulated liabilities of the state’s school employees pension system will be funded by a dwindling payroll base. Without new revenues, resources are likely to be increasingly diverted away from school functions to growing retirement costs. Public school districts contribute to the Michigan Public School Employees Retirement System (MPERS), a statewide multiple employer cost-sharing pension and post-retirement healthcare plan. Public school employees contribute a share of payroll to the plan, with school districts making up the remainder of an actuarially determined and statutorily required annual payment; charter school employees may be a part of the plan but typically are not.<sup>4</sup>

Since 2007, the reported funding status of the MPERS pension plan declined from 88.7% to 64.7% as of September 30, 2011 (see Exhibit 8). This represents an increase in the unfunded liability from \$5.8 billion to \$22.4 billion over the same time period, an increase of 286%. Inclusive of the system’s other post-retirement benefits (OPEB) liabilities, the total plan reported funded status was an even poorer 46.6% as of September 30, 2011 and the unfunded liability was \$48.3 billion.<sup>5</sup>

EXHIBIT 8

#### Reported Basis Actuarial Accrued Liability (AAL) and Actuarial Value of Assets (AVA) (\$ millions) of the MPERS Pension Plan (as of September 30 each year)



Note: These figures exclude OPEB liabilities and assets  
Source: MPERS comprehensive annual financial reports

Under our methodology for adjusting reported pension information and allocating reported liabilities and assets to individual plan members based on their respective share of plan contributions, we estimate that the adjusted net pension liability across all public school districts in Michigan is \$45.5 billion, as of the most recent MPERS actuarial valuation date of September 30, 2011.<sup>6</sup> This is

<sup>4</sup> The statutory payment and actuarially required payment may not be equal going forward.

<sup>5</sup> In addition to public school districts, MPERS members include community colleges, intermediate school districts, some public charter schools, some public universities, and some public library districts. The reported liabilities and assets are for the entire plan and, therefore, the reported unfunded liability does not reflect a burden that falls solely upon public school districts.

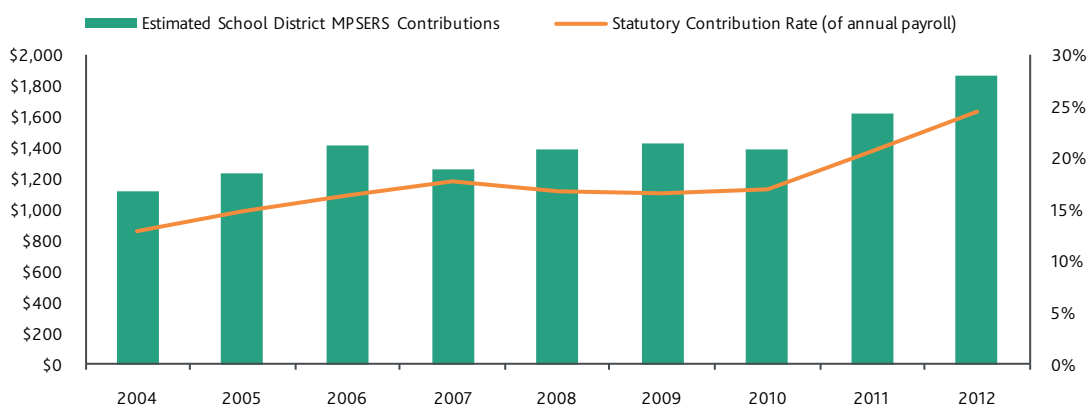
<sup>6</sup> While MPERS members include entities other than public school districts, the estimated ANPL applies solely to K-12 public school districts.

approximately 320% of the General Fund revenues collected by all public school districts in fiscal 2012, indicating significant exposure to net pension liabilities.

Increases in the reported unfunded liability have necessitated growth in the annual contribution to the plan. Exhibit 9 illustrates the growth in both the nominal contributions to MPERS and the statutory share of payroll contributed to the plan. The public school district employer portion of combined pension and OPEB contributions increased 34% from approximately \$1.4 billion in 2010 to nearly \$1.9 billion in 2012. As a share of annual payroll, statutory payments to MPERS increased from just under 17% in 2010 to nearly 25% in 2012. The rate paid in 2013 increased only modestly to 25.4% following passage of state legislation capping school district contributions.

EXHIBIT 9

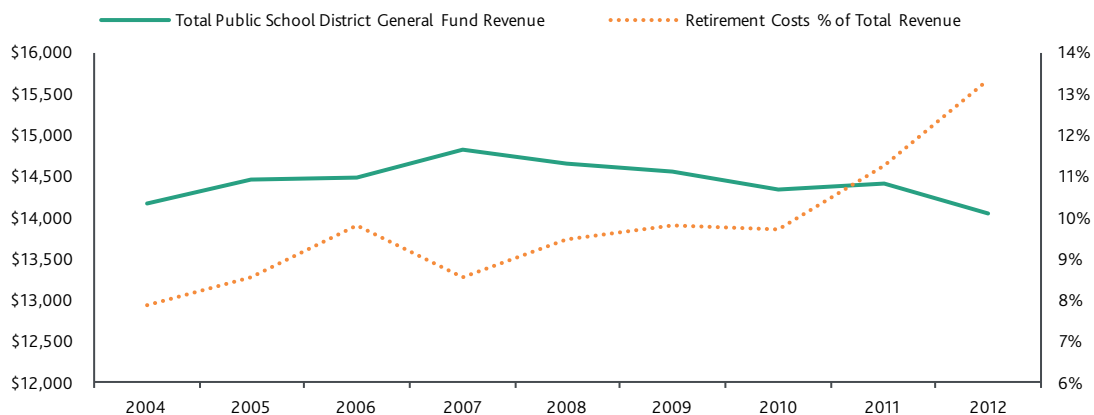
### Growth in Statutory Contribution Rate Drives Increases in Total Pension and OPEB Contributions (\$ millions)



Source: Analysis of MPERS comprehensive annual financial reports and Michigan Department of Education data; State of Michigan Office of Retirement Services

State funding for school districts stagnated and then declined through fiscal 2012 while retirement costs continued to grow. In fiscal years 2010 and 2011, the State of Michigan partially filled funding gaps in the School Aid Budget with Federal American Recovery and Reinvestment Act (ARRA) funds. In fiscal 2012, ARRA money was no longer available to offset state revenue shortfalls and the state reduced the per-pupil foundation allowance by \$470, or roughly 6%. This largely accounts for the downward trend in total public school district General Fund revenues through fiscal 2012 (see Exhibit 10). The share of revenue dedicated to meeting annual retirement obligations has grown significantly since 2007.

EXHIBIT 10

**As Revenues (\$ million) Decline, the Share Dedicated to Retirement Costs Increases**

Source: Analysis of MPERS comprehensive annual financial reports and Michigan Department of Education data

Further negative plan performance will only necessitate additional resources being diverted to the retirement system. Public Act 300 of 2012 capped the school district contribution rate for unfunded liability amortization of MPERS at 20.96% of payroll. The state is now responsible for making up the difference between the required annual payment determined by plan actuaries and the amount contributed by school districts. The state is expected to appropriate its payment to the system from the School Aid Fund. Though the state would make this payment on behalf of school districts, the payment would be made with resources that otherwise may be earmarked for school district operations.<sup>7</sup> School districts remain responsible for meeting any increased normal cost requirements.

### Credit Pressure Expected to Continue

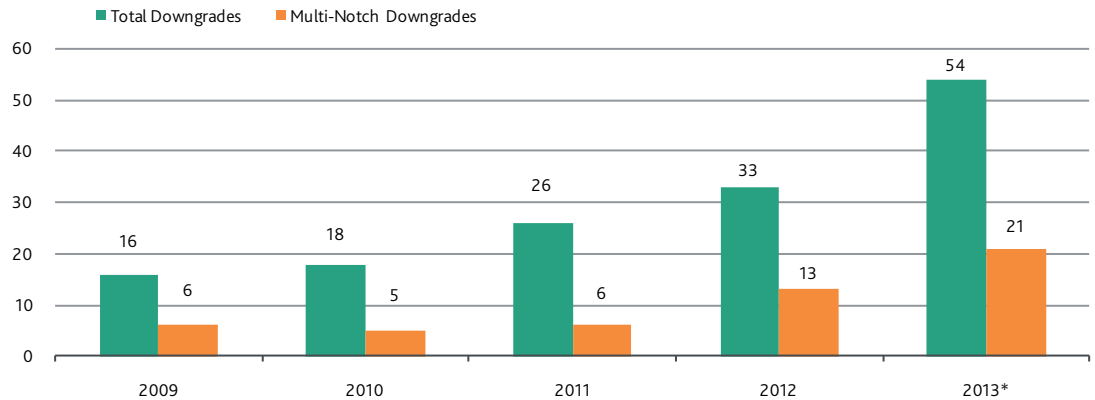
From January through October of 2013, we downgraded 53 school districts, representing 22% of our Michigan portfolio. Pontiac City School District was downgraded on two separate occasions during this time period, resulting in 54 separate downgrade actions (see Exhibit 11). Almost 40% of the downgrades were greater than one notch. The number of downgrades so far in 2013 exceeds the total number of downgrades in 2012 by 64%, and downgrades of two or more notches have increased 62% year-over-year.

<sup>7</sup> To the extent the revenue sources of the state's School Aid Fund do not change, the impact of an increased state appropriation to MPERS would fall squarely on school districts. The state could increase its use of General Fund revenues to maintain school district operational funding in the School Aid Fund, though, absent growth in general state revenues, this would come at the expense of other state interests.



EXHIBIT 11

**Total and Multi-Notch Downgrades of Michigan Public School Districts Have Increased Annually**



\* Through October

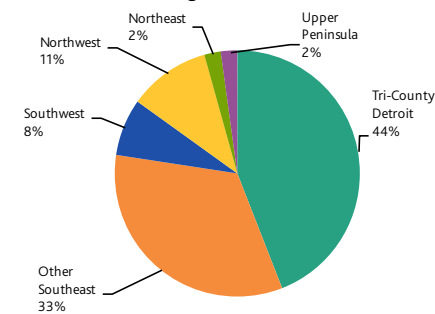
Source: Moody's Investors Service

While rating downgrades remain concentrated in the southeast region of the state, the distribution of downgrades has shifted somewhat in the current year (see Exhibit 12). This follows from the fact that, while enrollment patterns tend to be much more negative in and around Detroit, other areas of the state have also contended with declines. Likewise, all districts are equally constrained in the ability to raise new revenues to offset enrollment losses and are equally exposed to rising retirement costs. Given the presence of these two challenges, credit pressures for school districts are expected to persist throughout the state.

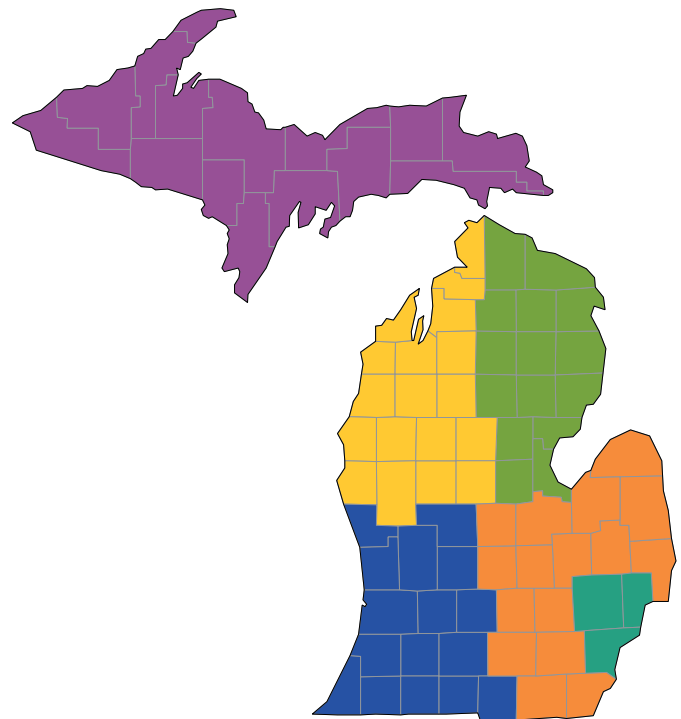
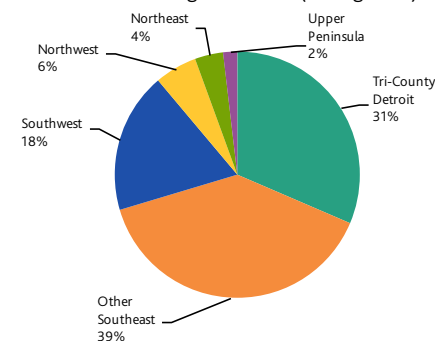
EXHIBIT 12

**The Distribution of Downgrades Modestly Shifts Away from the Detroit and Wider Southeast Region**

Distribution of Downgrades, 2009-2012



Distribution of Downgrades, 2013 (through Oct)



Source: Moody's Investors Service

## Moody's Related Research

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- » [Tight Liquidity and Competition Fuel Michigan School District Defaults, June 2013 \(154914\)](#)
- » [Distressed Michigan School Districts Under More Pressure Due to Withholding of State Aid, May 2013 \(153999\)](#)
- » [Michigan School Districts Under Pressure: Outlook Remains Negative, November 2012, \(147479\)](#)
- » [Michigan's Emergency Loan Program is Credit Positive for Struggling Municipalities, August 2012 \(144689\)](#)

### Sector Outlooks:

- » [Why US Local Governments Still Have a Negative Outlook Despite Our Revised Outlook for States, August 2013 \(157557\)](#)
- » [Outlook for US Local Governments Remains Negative in 2013, February 2013 \(150152\)](#)

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